

ref 4'

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-187359

(43)Date of publication of application : 08.07.1994

(51)Int.Cl. G06F 15/21  
G06F 15/40

(21)Application number : 04-340353

(71)Applicant : FUKUTAKE SHIYOTEN:KK

(22)Date of filing : 21.12.1992

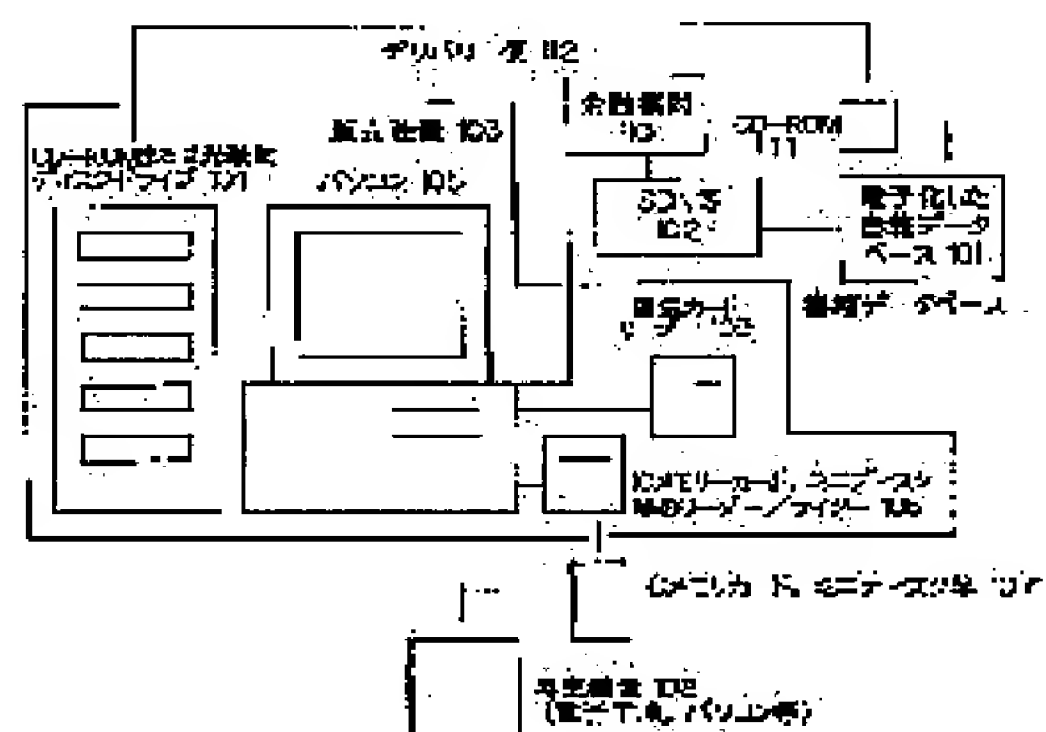
(72)Inventor : HIRAKI HIROSHI

(54) SALES DISTRIBUTION UTILIZATION SYSTEM FOR ELECTRONIC BOOK OR THE LIKE

(57)Abstract:

**PURPOSE:** To improve the portability and retrieval of a book and save the storage space for books by storing electronic text information in a portable storage device.

**CONSTITUTION:** Bibliographic data are inputted to the personal computer 105 in a vending machine 103 installed in a bookstore, etc., and a desired book is specified to purchase an electronic book from a database 101, which is installed in a publishing company, etc., and stored with text information of electronic books, etc., through a communication line 102 such as ISDN. The text information on the electronic book is stored on an IC memory card 107 and reproduced by a reproducing device 108.



### Industrial Application

[0001] This invention relates to sale, circulation, and the utilization system of the text information of the books etc. which were electronized.

In detail, do not use paper as an information transmission medium, but the electronized text information is stored in the electronic auxiliary storage unit of portability, readers displaying it on each one of displays, and reading it, or hearing the text by which sound reproduction was carried out -- it is related with sales circulation utilization systems, such as electronic books which make possible materialized new "reading" gestalt.

### Problem(s) to be Solved by the Invention

[0002] It is huge, a newspaper and a magazine are also published every day, and the public institution relation document is also increasing books publication mark by continuously today. It produces not only in domestic but worldwide, and such text information is used.

[0003] According to quantitative increase of this text information, the unescapable problem has arisen in the each side of a publishing company, a distributor, a bookstore, a library, and a reader only also about books.

[0004] In a publishing company, reservation of the space for stock and returned-goods books is difficult, The display spaces for sale in a bookstore always run short, a bookshelf is full of a book reader's dwelling, and even a floor is loaded with a book, The bookshelf arrived to the ceiling and the laboratory of the university has caused the problem with serious spatial position which the conventional books which are the bunches of paper occupy as a "thing" and

its remarkable weight, such as taking pains over the storage space for a new publication at a library.

[0005] The rating accompanied by moving the books of a storage housed place which are physical existence insufficient is also a big issue. In a distributor, a distribution-of-books circulation process carries out increase expansion, the clerical work of returned goods is complicated also at a bookstore, and the physical work of returned goods is too cruel because of shortening of a circulation cycle, and the weight of books.

[0006] When there are no books to desire in a nearby bookstore, the actual condition is taking time by acquisition. Many books cannot be put on a shop front at a small-scale bookstore now when it is the extensive publication age because of restriction regarding the place. It is not easy that only the volumes which desire books which a small-scale bookstore desires under the present commission system come to hand promptly in addition to restriction regarding the place. Other than a specific big city, the large-scale bookstore which sets the books covering all fields at a shop front is not easy for accessing desired books despite a join office for those who do not reside in the area where it is easy to access such a large-scale bookstore in the actual condition not existing.

[0007] Also at the large-scale bookstore which has books of all fields, it is difficult to find the books in which required information is written for a short time. At the large-scale bookstore, search of the books using the bibliographic information that the terminal of the computer was used is performed in order to perform search quick for the difficult conquest. However, it is for this search obtaining books to the last, and even about the

contents of books, suitable keyword attachment is not performed but can not necessarily perform only search about an author, a title, and a publishing company. [0008] Also in the college library which has a lot of collection of books, for example, even if search by a computer is performed only in the limited range but it is further once able to specify desired books, it is dramatically difficult to reach physically the book possessed for each section. Not to speak of curving, probably the use of books itself is not usually allowed other than authorized personnel for \*\*\*\*\* and the prevention from loss.

[0009] By combining with the playback equipment which electronizes the text information of one books etc., stores in the auxiliary storage unit of portability, and has portability under the above actual condition. Improve portability and search nature, such as books, expand the width of use, and storage space, such as books, is reduced at two readers' home, 3) Conventionally, reduce the spaces which are needed at a library, a bookstore, etc. and which place books, reduce stock of four publishing companies, and by connecting using a circuit with five financial institutions, a credit company, etc. further. The customer can purchase, without being based on cash, and, as for the sale side, it is the purpose of this invention to provide the system which can grasp a customer's purchase situation.

#### Means for Solving the Problem

[0010] Utilization systems, such as electronic books by this invention, (1a) By inputting bibliographic (1b) information as an electronic text information database which stored text information, A means to take out a list of text information which refers to a part for a

bibliographic information storing part in said electronic text information database, and corresponds to inputted conditions, and to display on a display, (1c) A means to choose desired text information out of a text information list displayed on said displaying means, A means to receive via a communication line from said database, and to download all or a part of text information answered and chosen as said selecting means to an auxiliary storage unit of portability, (1d) They are playback equipment which reproduces this text information from said portable auxiliary storage unit which said text information downloaded, and a \*\*\*\*\* system.

[0011] Sales circulation utilization systems, such as electronic books by this invention, (2a) By inputting (2b) bibliographic information as an electronic text information database which stored text information, A means to take out a list of text information applicable to conditions which were searched with a part for a bibliographic information storing part in said electronic text information database, and were inputted, and to display on a display, (2c) A means to choose desired text information out of a text information list displayed on said displaying means, A means to receive via a communication line from said database, and to download all or a part of text information answered and chosen as said selecting means after paying purchase / use price for said text information to an auxiliary storage unit of portability, (2d) They are playback equipment which reproduces this text information from said portable auxiliary storage unit which said text information downloaded, and a \*\*\*\*\* system.

#### Function

[0012] Sales circulation utilization

systems, such as electronic books by this invention, By above-mentioned composition, it adds to the search even covering the contents by a computer terminal, Desired [ the whole text information of books etc. or a part of ] comes to hand via a communication line from the electronized database of text information, It is a system which enables an individual to download the text information to an auxiliary storage unit, and to reproduce and use text information from this auxiliary storage unit using each one of playback equipment. It is made to circulate freely in this system, without receiving geographical and a temporal restriction by moving the information itself which did not carry out sales circulation use of the books as a "thing", but the conventional books were carrying through paper as digital data via an electronic medium.

[0013] An above-mentioned problem is solved by using the electronic storage which has an information storing function only paying attention to the communicative function which books have. The book was materializing and circulating only after people copied every character by hand on expensive paper or parchment paper once. Then, although it results in the present extensive publication age by making a lot of copy using the printing technique newly born on the paper manufactured cheaply in large quantities, A possibility that a new "books" sales circulation utilization system will be born has arisen from the electronic memory storage which has big capacity today could use easily, and a lot of information transmission having become possible at high speed.

### Example

[0014] The system configuration in the case of purchasing electronic books etc. according to the system of this invention, and settling the purchase price with electronic fund transfer (drawing 1) and a work process (drawing 2) are explained.

[0015] A system configuration is shown in drawing 1. The selling device 103 is installed in a bookstore etc. and comprises the personal computer 105, CD-ROM or Magnetic-Optical disk drive 104, the magnetic card reader 109, and the reader/writer 106 of an IC memory card. The database 101 and the selling device 103 which stored the text information of the electronic books etc. which are installed in a publishing company etc. are tied with the communication lines 102, such as ISDN. In order to perform electronic fund transfer, this communication line 102 is connected also to the financial institution 110. The buyer of electronic books reproduces the text of the electronic books of the request memorized by IC memory card 107 with the playback equipment 108. It is also possible to convey CD-ROM 111 the text of electronic books was remembered to be from the publishing company etc. at the bookstore etc. using the delivery facilities 112 by a track etc., without using the communication line 102.

[0016] According to the flow chart of drawing 2, the process in which a sale of electronic books is made by the system of this invention is shown. The buyer who is going to obtain electronic books looks at the electronic books search guide stored in the auxiliary storage unit in the selling device which the personal computer 105 in the selling device 103 displays (201), The conditions of the search which consists of bibliographic information are

inputted (202), and an electronic books index is searched (203). On the display of the personal computer 105, the list of the books which have, the guides, i.e., the given conditions, of search results and purchase, is displayed (204), and a buyer specifies the books to purchase out of the list (205).

[0017] Next, the prices of the books purchased on the display of the personal computer 105 are displayed, and a purchase price is settled with electronic fund transfer. That is, an electronic payment order is performed via the communication line 102 which connects the purchase device 103 concerned and the financial institution 110, and a credit entry is performed to the account of electronic books suppliers, such as a publishing company in the financial institution 110, at the account of a debit entry and a buyer. It is also possible to use the settlement system of a credit company, and this process is shown to many steps (206-214) of drawing 2 by when a buyer makes a self credit card read by the magnetic card reader 109. For a publishing company, it is convenient to perform electronically not only supply of electronic books but settlement of a purchase price, when getting to know a specific customer's purchase situation, but it is also possible to make payment by cash directly to selling device 103 installers, such as a bookstore.

[0018] After paying a purchase price with electronic fund transfer, a buyer, Self IC memory card 107 is inserted in the reader/writer 106 of an IC memory card (216), The electronic book database 101 is accessed via the communication lines 102, such as ISDN (217, 218), require download of electronic books (219) and pass transmission (220) and

reception (221) of electronic books -- the text of electronic books is written in self IC memory card 107 (223, 224), an IC memory card is taken out (225), and a series of purchase processes are completed. The buyer can read the electronic books on the IC memory card 107 using self playback equipment. It is also possible to be able to use a usual personal computer and electronic notebook, to newly create the specific device for the system of high-speed search within those electronic books or this invention which becomes movable in this playback equipment, and to use it for it.

[0019] Generally as another example, only the books in the bibliographic information database in the auxiliary storage unit with which the selling device 103 was equipped are not made into a selling object, the text information database (a newspaper article database.) with which either only electronized the selling device 103 It is made to function only as a terminal to a judicial precedent database etc., namely, it becomes possible to have an advantage of this invention in sales circulation use of the text information of the still wider range by using the system of this invention as a means to access the database which has general text information. If an international communication line is used, text information can be obtained from the database in the world.

#### Effect of the Invention

[0020] In the system of this invention, only the communicative function which books have instead of the books themselves which is physical existence is taken out, and its attention is paid to it. By moving the information itself to carry, the text, i.e., the books, which were

electronized, and considering it as the object of sales circulation use, the problem accompanying the present book-selling circulation use of storing and saving [ move and ] the books themselves and re-moving it is extinguished certainly. That is, grasp etc. of the profits on the management by reduction of exhibition and storage space, such as expansion of the use width by improving the portability and search nature which this invention makes the purpose, such as books, and books, and the inventory reduction of a publishing company, and the purchase situation of the customer by the sale side by using electronic fund transfer are attained.

[0021] In the books of a conventional type, the unit of one volume and two volumes exists according to the physical limit as a bunch of the paper of being from 1 page of the start to the last 1 \*-JI. However, if its attention is paid only to the information which books carry instead of the books themselves, there may be hope of the partial purchase in one book instead of the whole, and according to the system of this invention, such a new purchase style will also become possible.

[0022] Even if it uses the existing personal computer communications, it is also possible to reproduce much text information on the display of a self personal computer, or to print out, but. In the bookstore etc. which were provided with the selling device of this invention without joining a specific network according to the system of this invention, The text information in the database in the world can be stored in a self IC card, and new "reading" beyond the conventional reading is attained by reproducing it on an electronic notebook, without choosing a place.

[0023] According to the system of this invention, the electronized library without collection of books completely different from the library of a conventional type where only a computer terminal is located in a line becomes possible. Although the library of the conventional type was a place for accessing the book itself, unlike it, this electronized library exists as an organization for accessing the text information itself which were electronized instead of a book. A user will obtain text information via this electronized library, and will memorize that information to a self IC memory card etc.

#### Brief Description of the Drawings

[Drawing 1] It is a schematic diagram of the example of the electronic book-selling circulation utilization system of this invention.

[Drawing 2] It is a flow chart of the example of this invention.

#### Description of Notations

- 101 The electronized book database
- 102 Communication line
- 103 Selling device
- 105 Personal computer
- 107 Memory storage, such as an IC card
- 108 Playback equipment

What is claimed is:

1. An electronic text information utilization system which provides text information by which books etc. were electronized, comprising:
  - (a) An electronic text information database which stored text information.
  - (b) A means to take out a list of text information which refers to a part for a bibliographic information storing part in said electronic text information database, and corresponds to inputted conditions by



inputting bibliographic information, and to display on a display.

(c) A means to choose desired text information out of a text information list displayed on said displaying means.

A means to receive via a communication line from said database, and to download all or a part of text information answered and chosen as said selecting means to an auxiliary storage unit of portability, and playback equipment which reproduces this text information from said portable auxiliary storage unit which the (d) aforementioned text information downloaded.

2. An electronic text information sales circulation system which provides electronized texts, such as books, comprising:

(a) An electronic text information database which stored text information.

(b) A means to take out a list of text information applicable to conditions which were searched with a part for a bibliographic information storing part in said electronic text information database, and were inputted by inputting bibliographic information, and to display on a display.

(c) A means to choose desired text information out of a text information list displayed on said displaying means.

A means to receive via a communication line from said database, and to download all or a part of text information answered and chosen as said selecting means after paying a purchase price of said text information to an auxiliary storage unit of portability, (d) Playback equipment which reproduces this text information from said portable auxiliary storage unit which said text information downloaded.

3. Instead of connecting said electronized text information database and said selecting means via a

communication line, and transmitting said text information of use or a purchase desire via this communication line in claim 1 or the system according to claim 2, A system using delivery facilities which carry memory storage, such as CD-ROM which memorized a part or all of this text information.

4. A system which performs settlement of a purchase price of said text information via cash in the system according to claim 2 with electronic fund transfer (EFT) between a buyer's account and a books supplier's account in a financial institution.

5. Said portable auxiliary storage unit which downloads said text information in claim 1 or the system according to claim 2 is an IC card, A system in which said means to download is the reader/writer of an IC card and whose playback equipment of said text data is an electronic notebook thru/or a personal computer.

6. A system provided with a portable auxiliary storage unit which is claim 1 or the system according to claim 2, and makes sound reproduction of said text information possible, and playback equipment.